

AMENDMENT - Specification

Please replace the following paragraphs of the specification, as follows.

1. Please replace the specification's introductory paragraph (paragraph [0001] of publication no. 20060171883) in order to amend it, as follows:

“This application claims the benefit under 35 U.S.C. 371 of parent application PCT/US03/32602, filed October 10, 2003, which further claims the benefit of U.S. Provisional Patent Application No. 60/417,303, filed October 10, 2002, the entirety of which is are hereby incorporated herein by reference for all purposes.”

2. At page 14 of the application as filed (paragraph [0020] of publication no. 20060171883), please replace the first full paragraph in order to amend it to include “(Seq. Id. No. 4)” following the amino acid sequence PGSTAPPAHGV, as follows:

“Human mucin 1 (MUC1, also called MUC-1) is an epithelial mucin glycoprotein that is overexpressed in 90% of all adenocarcinomas including breast, lung, pancreas, prostate, stomach, colon, and ovary. MUC1 is a target for immune intervention, because, in patients with solid adenocarcinomas, low-level cellular and humoral immune responses to MUC1 have been observed, which are not sufficiently strong to eradicate the growing tumor. For instance, Hiltbold, E.M. et al., “Na⁴⁺ T cells,” Cancer Res. 58:5066-5070 (1998), reports that epithelial cell mucin MUC1 is expressed on adenocarcinomas in an underglycosylated form that serves as a tumor antigen in breast, pancreatic, ovarian, and other tumors, and that two predominant MUC1-specific immune responses are found in patients: CD8⁺ CTLs, which recognize tandemly repeated epitopes on the MUC1 protein core, and IgM antibodies. Asserting that there have been no prior reports of MUC1-specific CD4⁺ T-helper cells in cancer patients, and show that MUC1-specific CD4⁺ T cells are neither deleted nor tolerized and that CD4⁺ T cell responses can be generated when an appropriate soluble form of MUC1 is used. Naïve CD4⁺ T Cells from healthy donors were primed *in vitro* to a synthetic MUC1 peptide of 100 amino acids, representing five unglycosylated tandem repeats, presented by dendritic cells. They

produced IFN-gamma and had moderate cytolytic activity. The authors also identified one core peptide sequence, PGSTAPPAGHVT, (SEQ ID NO: 4), that elicits this response when it is presented by HLA-DR3.”

3. At page 39 of the application as filed (paragraph [0081] of publication no. 20060171883), please replace the first full paragraph in order to amend it to include “(Seq. Id. No. 2)” after the amino acid sequence GSTAPPAHGVTSAPDTRPAP, as follows:

“Advantageously, for localization of cells expressing MUC-1 according to the present invention, the immunogenic peptide displays an epitope of MUC-1 comprising an amino acid sequence that is a circular permutation of a MUC-1 sequence that comprises the sequence (expressed in conventional single letter code): SEQ ID NO: 1) PDTRP. Advantageously, the immunogenic peptide has the amino acid sequence (SEQ ID NO: 1), GSTAPPAHGVTSAPDTRPAP (SEQ ID NO: 2). Other MUC-1 immunogenic peptides and derivatives thereof that can be used in the present invention are disclosed elsewhere, for instance, in United States Patent No. 6,600,012 to Agrawal et al., and United States Patent No. 6,344,203 to Sandrin et al., issued February 5, 2002, disclosing peptide mimicks of MUC1 or other cancer peptides which can be included in cancer vaccines and used in the present methods for cancer patients.”